

REMARKS

Claims 1-4 are currently pending. Claims 1-4 are presented to the Examiner for further prosecution on the merits.

In view of the following remarks, favorable reconsideration of this application is respectfully requested.

In the Office Action mailed June 14, 2004, claims 1 and 2 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,946,906 to Akazaki et al., claim 1 is rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,321,533 to Watanabe et al., and claims 3 and 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Akazaki et al. in view of U.S. Patent No. 5,746,049 to Cullen et al.

Applicants hereby respectfully traverse these rejections for at least the reasons set forth below.

Claim 1 recites, in part:

atmospheric pressure state detecting means for detecting an atmospheric pressure state; and
switching valve driving means for driving said switching valve to said close position upon start of said internal combustion engine, and for driving said switching valve to said open position in accordance with the detected atmospheric pressure state.

U.S. Patent Application Serial No.: 10/658,536, claim 1.

In the claimed invention, the switching valve is driven to the closed position upon start of the internal combustion engine, thereby closing the first passage and forcing the

exhaust gases to flow into the second passage having the adsorbent filled therein. Thus, hydrocarbons within the exhaust gases are adsorbed in the second passage to prevent the emission of the hydrocarbons to the atmosphere. Then, the switching valve is driven to the open position in accordance with the detected atmospheric pressure state, thereby opening the first passage and guiding the exhaust gases to flow into the first passage.

Thus, as set forth in the specification as filed at p. 6, line 11 - p. 7, line 5, since the switching valve in claim 1 is driven to the open position in accordance with the atmospheric pressure state detected by the atmospheric pressure state detecting means, the switching valve can be switched at a timing that is set later than usual when the atmospheric pressure is lower, such as on a mountain. Heat applied to the adsorbent and catalyst during the adsorption of hydrocarbons are therefore increased, allowing sufficient heating of the adsorbent and catalyst. As a result, even on a mountain, it is possible to maximally activate the catalyzer, hasten the desorption of hydrocarbons from the adsorbent, and permit sufficient desorption of hydrocarbons in a short time.

Applicants respectfully submit that unlike the claimed invention, neither Akazaki nor Watanabe discloses or suggests "atmospheric pressure state detecting means for detecting an atmospheric pressure state" and "switching valve driving means ... for driving the switching valve to the open position in accordance with the detected atmospheric pressure state," as recited in claim 1.

In rejecting claims 1-4, the outstanding Office Action alleges that Akazaki discloses “atmospheric pressure state detecting means” 94 for detecting an atmospheric pressure state. However, col. 5, lines 52-55 of Akazaki disclose that element 94 is a manifold absolute pressure sensor for detecting a pressure Pb of an intake manifold downstream of a throttle valve 14. Thus, it is respectfully submitted that the sensor 94 does not detect an atmospheric pressure or an atmospheric pressure state, and therefore does not correspond to the “atmospheric pressure state detecting means” recited in claim 1. Moreover, it is respectfully submitted that Akazaki neither discloses nor suggests detecting an atmospheric pressure or an atmospheric pressure state.

The outstanding Office Action further alleges that Akazaki discloses at col. 4, lines 40-51 a “switching valve driving means” 86 for driving the switching valve to the open position in accordance with the detected atmospheric pressure state. However, col. 4, lines 40-57 of Akazaki disclose only that a valve actuator 64 drives open a bypass valve member 68 in response to a negative pressure from a downstream location of the throttle valve 14, to thereby introduce the exhaust gas into an adsorber 74 installed in a bypass 56. Akazaki fails to disclose or suggest driving the switching valve to the open position in accordance with the detected atmospheric pressure state, as recited in claims 1 and 2. Consequently, claims 1 and 2 are neither disclosed nor suggested by Akazaki.

In rejecting claim 1 as being allegedly anticipated by Watanabe, the Office Action asserts that Watanabe discloses "atmospheric pressure state detecting means" 46 for detecting an atmospheric pressure state and a "switching valve driving means" 10 for driving the switching valve to the open position in accordance with the detected atmospheric pressure state.

However, col. 6, line 57 – col. 7, line 16 of Watanabe disclose that element 46 is a pressure sensor which communicates with a negative pressure feed line 42 and detects a feed pressure P (negative pressure) fed to a variable pressure chamber 36 of diaphragm mechanism 32 from an intake manifold 16 through the negative pressure feed line 42. In addition, col. 12, line 30 - col. 14, line 25 of Watanabe disclose that the signal from the pressure sensor 46 is used to determine a state of the switching mechanism 50 for diagnostic purposes. Judgment is made, based on the signal from the pressure sensor 46, as to whether the switching mechanism 50 is functioning normally or is experiencing a malfunction such as a stroke abnormality or being locked in a fully or partially opened or closed state. Watanabe neither discloses nor suggests that the signal from the pressure sensor is used to drive the switching mechanism to the open position.

Rather, Watanabe discloses that when a vacuum switching valve 44 is not turned on, a diaphragm 34 is not deflected and a valve 28 is in an open state. Watanabe further discloses that when the vacuum switching valve 44 is turned on, the diaphragm 34 is deflected thereby closing the switching valve 28 and causing exhaust gas to pass through an HC adsorbent 31 to remove HC from the exhaust gas.

However, as previously noted, Watanabe fails to disclose driving the switching valve to the open position in accordance with the detected atmospheric pressure state, as recited in claim 1. Accordingly, claim 1 is neither disclosed nor suggested by Watanabe.

Claims 3 and 4 depend, directly or indirectly, from claim 1. Therefore, in view of the above, and further because Cullen fails to disclose or suggest “atmospheric pressure state detecting means for detecting an atmospheric pressure state” and “switching valve driving means for driving the switching valve to the close position upon start of the internal combustion engine, and for driving the switching valve to the open position in accordance with the detected atmospheric pressure state,” as recited in claim 1, claims 3 and 4 are neither disclosed nor suggested by the combination of Akazaki and Cullen.

CONCLUSION

For at least the above reasons, it is respectfully submitted that claims 1-4 are patentably distinct over the cited references. Accordingly, favorable reconsideration and withdrawal of the outstanding rejections and an issuance of a Notice of Allowance are earnestly solicited.

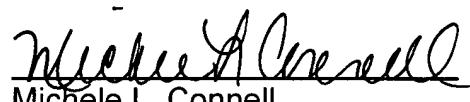
Should the Examiner determine that any further action is necessary to place this application into better form, the Examiner is encouraged to telephone the undersigned representative at the number listed below.

In the event this paper is not considered to be timely filed, the Applicants hereby petition for an appropriate extension of time. The fee for this extension may be charged

to our Deposit Account No. 01-2300 referencing docket number 108419-00052. The Commissioner is hereby authorized to charge any fee deficiency or credit any overpayment associated with this communication to Deposit Account No. 01-2300 referencing docket number 108419-00052.

Respectfully submitted,

Arent Fox PLLC


Michele L. Connell
Registration No. 52,763

Customer No. 004372
1050 Connecticut Ave., N.W.
Suite 400
Washington, D.C. 20036-5339
Telephone No. (202) 857-6104
Facsimile No. (202) 857-6395

MLC/sg